

13. $a(t) = 2t - 3$ $v(0) = -4$ $0 \leq t \leq 5$
 when farthest left. (min position)
 smallest x

$$v(t) = t^2 - 3t + C$$

i.c. $-4 = C$

$$v(t) = t^2 - 3t - 4 = 0$$

$$(t-4)(t+1) = 0$$

$t = -1, 4$ $a(4) = 5 > 0$ concave up

v $-$ 0 $+$

$|$

4

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10. $(5, 2)$ $m = h'(5) = 1$

$$y = 1(x-5) + 2$$

$$y - y_1 = m(x - x_1)$$

or

$$y = m(x - x_1) + y_1$$

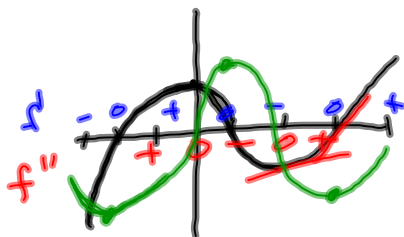
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review 9 relation between f, f', f''
 inflection points
 concavity

If $f'' > 0$ then f is concave up ☺
 if $f'' < 0$ then f is concave down ☹
 if f'' changes sign, f has an inflection pt.
 ξ f is defined
 candidates: $f'' = 0$ or $f'' = \infty$

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$$y = f'(x)$$



Sketch f

when is f concave up?

$$f'' > 0 \quad [-3, 0) \cup (2, 4]$$

f concave down $(0, 2)$

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